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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,615	09/27/2001	Masakazu Hirano	09412.65876	7774
7590	07/13/2005			EXAMINER NEGRON, DANIEL L
Patrick G. Burns, Esq. GREER, BURNS & CRAIN, LTD. Suite 2500 300 South Wacker Dr. Chicago, IL 60606			ART UNIT 2651	PAPER NUMBER
DATE MAILED: 07/13/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/965,615	HIRANO ET AL.
	<b>Examiner</b> Daniell L. Negrón	<b>Art Unit</b> 2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 25 April 2005.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1,2,5,7-12,15 and 17-21 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1,2,5,7-12,15 and 17-21 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/25/05.  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 2, 5, 7-12, 15, and 17-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Regarding claims 1 and 11, the amended claims recite the limitation “...wherein a **gradual change in said driving current occurs throughout the entire load operation** wherein said arm is released in a parking area by the head feed operation and/or **throughout the entire unload operation** wherein said arm is pushed in the parking area as the unload operation is completed” is not consistent with the specification of the current application. Page 14, lines 18-28 of Applicant’s specification discloses that a voice coil motor current is controlled to change gradually during the load operation in the silent mode, however the specification further discloses on page 14, lines 29-31 “In addition, in the silent mode, the VCM current is controlled to change **sharply** during the load operation...” which clearly shows that a gradual change in driving current **does not** occur throughout the **entire** load operation as recited in amended claims 1 and 11.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 9-12, 20, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Uchiike et al U.S. Patent No. 6,236,527.

Regarding claim 11, Uchiike et al disclose a storage apparatus comprising a load/unload mechanism, configured to carry out a ramp load/unload operation to load/unload a head (4) which is provided on an arm (3) with respect to a recording medium (1) by a driving part e.g. voice coil motor (5), which drives the arm (See Fig. 4 and column 3, lines 41-63).

Uchiike et al further disclose a storage apparatus comprising a controller e.g. CPU (10) configured to control a driving current which is supplied to the driving part so as to undergo a gradual change during at least one of a load operation for a head feed operation which feeds the head toward the recording medium, and an unload operation as the unload operation is completed (see Fig. 4 and previous Office action mailed February 7, 2005).

Uchiike et al further disclose a storage apparatus wherein a gradual change in the driving current occurs throughout the entire load operation wherein the arm is released in a parking area by the head feed (i.e. load) operation, and/or throughout the entire unload operation wherein the arm is pushed in the parking area as the unload operation is completed (see Fig. 2(b) and Response to Arguments for details).

Regarding claim 1, method claim 1 is drawn to the method of using the corresponding apparatus claimed in claim 11. Therefore method claim 1 corresponds to apparatus claim 11 and is rejected for the same reasons of anticipation as used above.

Regarding claims 2, 9, 10, 12, 20, and 21, claims 1, 2, 9, 10, 12, 20, and 21 are rejected for the same reasons discussed in the Office action mailed on February 7, 2005, (see Response to Arguments).

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 5, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchiike et al U.S. Patent No. 6,236,527 in view of Huang et al U.S. Patent No. 6,583,964.

Regarding claims 5, 15, and 17, claims 5, 15, and 17 are rejected for the same reasons discussed in the Office action mailed on February 7, 2005, (see Response to Arguments).

3. Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchiike et al U.S. Patent No. 6,236,527 in view of Phan et al U.S. Patent No. 5,760,992.

Regarding claims 7 and 18, claim 7 and 18 are rejected for the same reasons discussed in the Office action mailed on February 7, 2005, (see Response to Arguments).

4. Claims 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchiike et al U.S. Patent No. 6,236,527 in view of Koizumi et al U.S. Patent No. 5,982,570.

Regarding claims 8 and 19, claim 8 and 19 are rejected for the same reasons discussed in

the Office action mailed on February 7, 2005, (see Response to Arguments).

***Response to Arguments***

5. Applicant's arguments filed April 25, 2005 have been fully considered but they are not persuasive. Applicant, on pages 8 and 9 of the response to the previous Office action mailed February 7, 2005 argues that Uchiike et al U.S. Patent No. 6,236,527 fails to show a gradual change in of driving current occurs throughout the entire load/unload operation wherein the arm is released in a parking area by the head feed operation. The Examiner however respectfully disagrees since Uchiike et al shows a driving current undergoing a gradual change during a loading operation represented by element C1 in Figure 4(a) which occurs while the arm is released from the parking area ("inclined surface 6d of the ramp") (column 6, lines 10-14) and a driving current undergoing a gradual change during an unloading operation represented by element C2 in Figure 4(b) which occurs while the arm is pushed in the parking area (column 6, lines 21-24). It is considered that the gradual driving current applied by Uchiike et al to move the arm is to release the arm from the parking area in a load operation and to push the head to the parking area in a unload operation. For these reasons it is considered that Uchiike et al meets the limitation of the Applicant's invention as claimed.

Regarding claims 2, 5, 7-10, 12, 15, and 17-21, claims remain rejected under 35 U.S.C. 102(e) and 35 U.S.C. 103(a) for the same reasons discussed in the previous Office action since claims depend from independent claims 1 and 11.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniell L. Negrón whose telephone number is 571-272-7559. The examiner can normally be reached on Monday-Friday (8:30-6:00) alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DLN  
June 28, 2005

DAVID HUDSPETH  
SUPERVISORY PATENT EXAMINER  
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